

www.switchfilm.it

Switchfilm is a business reality born from the desire to bring innovation in the field of **security, privacy on demand and digital communication to the glass industry**

SwitchFilm aims to **create value off ordinary glass surfaces**. Inactive surfaces that surround our daily lives and that can be optimized for use in a range of applications. Our state-of-the-art products are backed by years of research and development, with additional experience in processing. Five years warranty, CE/FCC/UL/ISO certifications and a standard of specification regulation, providing an unprecedented level of **quality control**.

SwitchFilm is determined to meet the demands of the glass industry and ready to respond to market challenges in terms of **innovation**, **durability**, **application integration and formulations to manipulate the sharpness of glass and image**.

Being innovative, for us, is not a simple way of saying, but it is our real mission.

Smart Optical Film

Innovative Smart Optical Film Coating with high performances for our smart liquid crystal films that lead the trend towards the sectors Architecture -Automotive – Applications Uco Display on Glass.

Excellent Privacy and Better Transparency Capability

Over 88% Light Transmission
160-degree Viewing Angle with Reduced Haze Levels.



Automotive Applications

- UV and IR Blocking for Better Ambient Comfort
- High Durability
- Custom Shape Modeling

Acoustic Knockdown and Glass Reinforcement for Your Safety

- Better indoor comfort without annoying noises
- Increase the level of safety of your windows

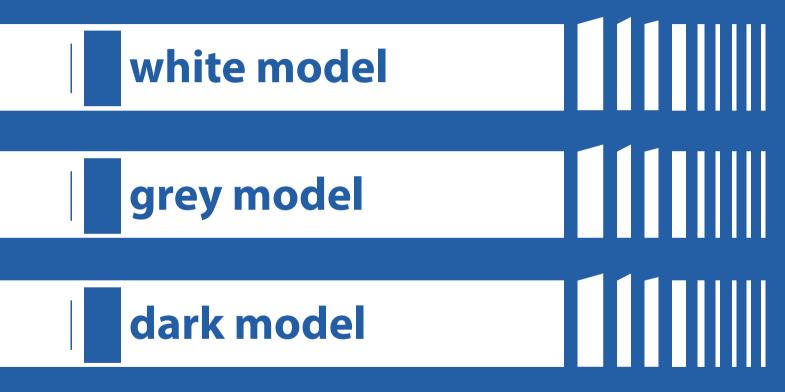




Projection on stained glass

- Make your glasses digital
- High-Resolution back projection
- Use for Interactive Promotions on shop windows

SWITCHFILM SERIES SF 97



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FUNCTIONS

SWITCH FILM[™]

white model

Privacy&Security High Smart Design Acoustic Abatement and Glass Reinforcement Space and Light Management Digital Glass in High Definition ADV with Digital Glass with AI Systems for Somatic Profiling Touch Technology on Glass Energy Efficiency with UV and IR Block.



Sample 40x25 White Off



Sample 40x25 White On



Coating that guarantees **the best performances between light transmission and energy efficiency.** Blocking UV Rays (>99%) and IR Rays (>91%) for high energy savings on exterior windows. In wide visibility ON mode, in opaque OFF mode.

FUNCTIONS

Privacy&Security High Smart Design Acoustic Abatement and Glass Reinforcement Space and Light Management Input Lux Reduction Digital Glass in High Definition ADV with Digital Glass with AI Systems for Somatic Profiling Touch Technology on Glass Energy Efficiency with UV and IR Block Green Material





Sample 40x25 Gray Off



Sample 40x25 Gray On



Coating that guarantees **the best performances between light transmission and energy efficiency with a Mirror Effect.** Blocking UV Rays (>99%) and IR Rays (>91%) for high energy savings on exterior windows. In wide visibility ON mode, in opaque OFF mode.

FUNCTIONS

Privacy&Security High Smart Design Acoustic Abatement and Glass Reinforcement Space and Light Management Input Lux Reduction Digital Glass in High Definition ADV with Digital Glass with AI Systems for Somatic Profiling Touch Technology on Glass Energy Efficiency with UV and IR Block Green Material





Sample 40x25 Dark Off

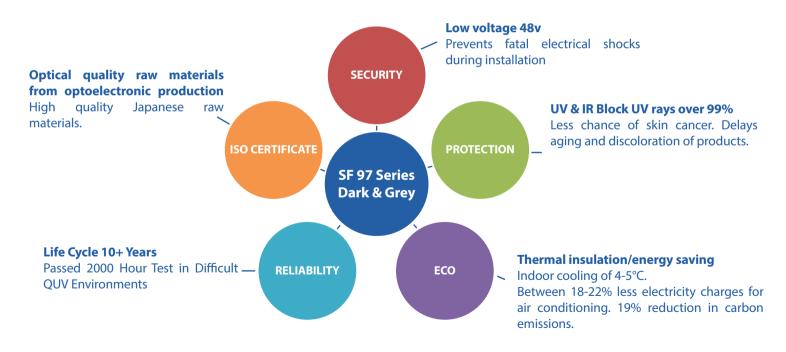


Sample 40x25 Dark On





Our Green Material







The new coatings of the **Grey&Dark** models have been made to obtain a Lcd Switch glazing, but **ensuring considerable Energy Efficiency values**, such as:

- **Reduction of Energy Costs up to 54%** (Test Duration: 21 days on External Windows; Detection of external/internal temperatures: 9 hours a day, from 8.00 am to 17:00 pm; reduction up to 5 degrees of difference between external.

- UV Rays block up to 99,5%;

- **LUX Reduction** (without Film entry over 6000LUX; with Film in ON entry 4250LUX; with Film in OFF entry 1800LUX. detected at mt. 1 away).

- Reduction of 19% Carbon Emissions

Annual simulation					
		Other thermal insulation	Green Material - Dark & Grey		
	Clear Glass	film (w/o PDLC)	On-clear	Off-opaque	
Simulated electricity consumption (kWh)	1015	882	877	823	
Reduced power (degrees)	-	-133	-138	-192	
Annual reduction	-	-13,1%	-13.,6%	-18,9%	
Annual carbon emission reduction (Kg)	-	-66,77	-69,28	-96,38	

Reduction of 19% Carbon Emissions

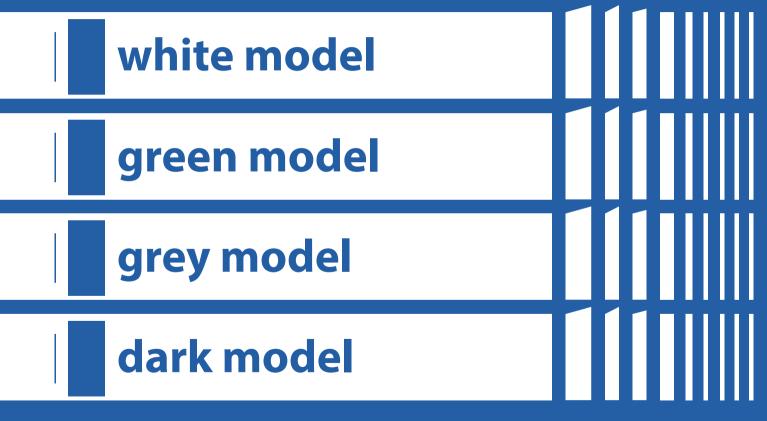
Illuminance (Lux)	Before installation	PDLC On Clear	PDLC Off Opaque
1 meter away from window (desktop height)	<6000	4250	1800
2 meter away from window (desktop height)	800	650	1000

LUX Reduction - Grey & Dark Models

SWITCHFILM RANGE - Series SF 97

S	eries	SF 97	SF 97	SF 97	SF 97	
Models		White ADH	White LAM	Grey ADH	Dark ADH	
Applic	ation Field	Interior	Interior	Curtain Wall/Facade	Curtain Wall/Facade	
Thickness (m	m) - without liner	0,265 mm (adhesive)	0,12 mm (laminated)	0,28 mm (adhesive)	0,28mm (adhesive)	
Ν	Node	On : Transparent; Off : Opaque				
Maximum	Size Suggested	1,500 x 3,600mm	1,500 mm x 3,600mm	1,500 x 3,600mm	1,500 x 3,600mm	
	Total Transmittance	> 86%(On) > 74%(Off)	> 86%(On) > 74%(Off)	> 66%(On) > 58%(Off)	> 36%(On) > 31%(Off)	
Optical	Haze	< 3,5%(On) > 96%(Off)	< 3,5%(On) > 96%(Off)	< 4,5%(On) > 97%(Off)	< 4,5%(On) > 97%(Off)	
Properties	Viewing Angle	160°	160°	160°	160°	
	UV cut	>99%	22%(On) / 29%(Off)	>99%	>99%	
	IR cut	27%(On)/ 44%(Off)	22%(On) / 29%(Off)	87%(On) 91%(Off)	90%(On) 93%(Off)	
SHGC	Solar Heat Gain Coefficient	0.79 (On) 0.62 (Off)	0.84 (On) 0.75 (Off)	0.49 (On) 0.40 (Off)	0.38 (On) 0.32 (Off)	
Electrical Properties		Driving Voltage 48 V(AC), Frequency :50 ~ 60 Hz Power Consumption: 5 ~10W / m ² Response Time: Off to On : < 10ms/ On to Off : < 200ms				
Operation Temp.		-10 + 60°C				
Storage Temp.		-20 + 65°C				

SWITCHFILM SERIES SF 95



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white, green, grey, dark models

Coating that guarantees the absolute **best performance** between **light transmission and visual angle**. In ON mode total transparency, in opaque OFF mode to ensure **Privacy on Demand**. Translucent coating suitable for **automotive and architecture** sector.

FUNCTIONS

Privacy&Security High Smart Design Acoustic Abatement and Glass Reinforcement Space and Light Management Digital Glass in High Definition ADV with Digital Glass with Al Systems for Somatic Profiling Touch Technology on Glass Translucent Coating Both Architecture and Automotive/Transport use.



Automotive use



Architectural use



Architectural use

SWITCHFILM - Series SF 95 (Adhesive)

S	Series	SF 95	SF 95	SF 95	SF 95
Models		White ADH	Green ADH	Grey ADH	Dark ADH
Applic	ation Field	Interior	Curtain Wall/Facade	Curtain Wall/Facade	Curtain Wall/Facade
Thickness (m	m) - without liner	0,45 mm (adhesive)	0,45 mm (adhesive)	0,45 mm (adhesive)	0,45mm (adhesive)
Ν	Mode	On : Transparent; Off : Opaque			
Maximum	Size Suggested	1,500 x 3,600mm	1,500 mm x 3,600mm	1,500 x 3,600mm	1,500 x 3,600mm
	Total Transmittance	> 84%(On) > 63%(Off)	> 67%(On) > 51%(Off)	> 49%(On) > 37%(Off)	> 34%(On) > 25%(Off)
Optical	Haze	< 3%(On) < 96%(Off)	< 4%(On) < 96%(Off)	< 4%(On) < 96%(Off)	< 4%(On) < 96%(Off)
Properties	Viewing Angle	160°	160°	160°	160°
	UV cut	>99%	>99%	>99%	>99%
	IR cut	34%(On) 44%(Off)	92%(On) 93%(Off)	92%(On) 93%(Off)	92%(On) 93%(Off)
SHGC	Solar Heat Gain Coefficient	0.77 (On) 0.66 (Off)	0.49 (On) 0.43 (Off)	0.44 (On) 0.39 (Off)	0.40 (On) 0.36 (Off)
Electrical Properties		Driving Voltage 48 V(AC), Frequency :50 ~ 60 Hz Power Consumption: 5 ~10W / m ² Response Time: Off to On : < 10ms/ On to Off : < 200ms			
Opera	tion Temp.	-10 + 60°C			
Storage Temp.		-20 + 65°C			

SWITCHFILM - Series SF 95 (Laminated)

S	Series	SF 95	SF 95	SF 95	SF 95	
М	lodels	White LAM	Green LAM	Grey LAM	Dark LAM	
Applic	ation Field	Interior	Curtain Wall/Facade	Curtain Wall/Facade	Curtain Wall/Facade	
Thickness (m	m) - without liner	0,21 mm (laminated)	0,21 mm (laminated)	0,21 mm (laminated)	0,21 mm (laminated)	
Γ	Mode	On : Transparent; Off : Opaque				
Maximum	Size Suggested	1,500 x 3,600mm	1,500 mm x 3,600mm	1,500 x 3,600mm	1,500 x 3,600mm	
	Total Transmittance	> 87%(On) > 73%(Off)	> 70%(On) > 55%(Off)	> 51%(On) > 39%(Off)	> 36%(On) > 27%(Off)	
Optical	Haze	< 3%(On) < 96%(Off)	< 4%(On) < 96%(Off)	< 4%(On) < 96%(Off)	< 4%(On) < 96%(Off)	
Properties	Viewing Angle	160°	160°	160°	160°	
	UV cut	43%(On) 29%(Off)	>99%	>99%	>99%	
	IR cut	22%(On) 29%(Off)	90%(On) 92%(Off)	90%(On) 92%(Off)	90%(On) 92%(Off)	
SHGC	Solar Heat Gain Coefficient	0.84 (On) 0.75 (Off)	0.51 (On) 0.45 (Off)	0.45 (On) 0.40 (Off)	0.41 (On) 0.37 (Off)	
Electrical Properties		Driving Voltage 48 V(AC), Frequency :50 ~ 60 Hz Power Consumption: 5 ~10W / m ² Response Time: Off to On : < 10ms/ On to Off : < 200ms				
Opera	tion Temp.		-10 + 60°C			
Storage Temp.		-20 + 65°C				



Model SFD100

Dimmer Model SFD100 has On/Off/Dimmer functionality

Can handle up to 12 square meters of Films

Equipped with a stylish Remote Control including wall mounting plate

Model SF50

The model SF50 has On/Off functionality

Can handle up to a maximum of 5 square meters of Films

Equipped with a stylish Remote Control





Model SF50 On/Off

Model SFD100 Dimmer

OPTOMETRICS FILM



Matrix Model Coil in version Laminate on glass or plexiglass.

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MATRIX from SwitchFilm[™] for Glass Laminate/Plexi is a Film/Film with very innovative matrices, used in Exterior or Interior Design, for the Creation of Graphics or Indications/Texts and more.

It has a unique feature: it self-illuminate in the dark without the use of energy sources. It can act as an autonomous emergency light source in the event of a power outage, or in a curtain wall of a building or as a screen on glass walls during the day and illuminated in the evening. It captures daylight and releases it in the dark.



Model MATRIX in the light



Model MATRIX in the dark



FEATURES - MATRIX MODEL

Width and Length	1000mm x 20M /per Roll
Thickness	190 μm
Shape	Any shape, including holes anywhere
Colour	Yellow-Green
Afterglow luminance	Luminance 20 minutes after 4 minutes irradiation at D65 and 200Lx
Usage	For glass lamination
Temperature	-20°C to 80° C
Brightness	300 to 500 Lux (Viewable spectrum range 400nm to 700nm)
Distance	Mt.1
Life cycle	More than 20 years

LENGHT OF LIGHT PERSISTENCE AFTER HAVING SUN LIGHT

0 minute	868mcd/m2
10 minutes	156mcd/m2
30 minutes	54mcd/m2
60 minutes	26mcd/m2
120 minutes	11mcd/m2

CONDITIONS OF SALE

1. Five-year warranty on the SwitchFilm PDLC Range from the billing date. Years one on controller kits from the date of billing, unless otherwise specified (excluding consumable parts and subject to normal wear and tear).

2. Transport to your load or by courier with charge of charges on the invoice.

3. Delivery to your address, to be evaluated time (except for unforeseen circumstances / except sold).

4. The delivery deadlines are effective from the moment of receipt of our Order Confirmation duly countersigned for acceptance and finalised according to the agreed payment terms. In the case of payment by bank transfer in advance, the goods can be sent and / or collected only after payment made with bank availability of the agreed sum.

5. Installation: the intervention of our technical staff is not expressly required; where required it is to be understood at your expense (to be agreed).

6. BB payment to ready goods.

7. Discrepancy: any complaints and / or requests for return for defective goods must be received exclusively in writing and / or agreed with the reference commercial, no later than 7 (seven) days after receipt of the same.

8. Confidentiality: SwitchFilm Srl undertakes not to disclose production methodologies and technologies and any type of information that is known in the performance of the activity.

SWITCH FILM TM make your choice

SwitchFilm S.r.I. Via Cavour, 27 - 73058 - Tuglie (LE) - ITALY - VAT Nr. IT04768660757 Phone: +39 0833 1976657 Mobile:+39 329 9414589 info@switchfilm.it

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